- 69 TRAC v. FCC, 801 F.2d 501, 517 (D.C. Cir.) pet. for reb'g. en banc denied, 806 F.2d 1115 (D.C. Cir. 1986), cert. denied, 482 U.S. 919 (1987). See also, Arkansas AFL-CIO v. FCC, 11 F.3d 1430 (8th Cir. 1993)(en banc).
- Syracuse Peace Council, 2 FCC Rcd 5043, 5054-55 (1987), recon. denied, 3 FCC Rcd 2035 (1988), aff'd. sub nom. Syracuse Peace Council v. FCC, 867 F.2d 654 (D.C. Cir. 1989), cert denied, 493 U.S. 1019 (1990).
- <sup>71</sup> See Public Service Reponsibilities of Broadcast Licensees, 12 (1946) (Blue Book) (quoting Great Lakes Broad. Co., 3 F.R.C.Ann. Rep. Docket No. 4900 (1928)). See also Communications Act of 1934 (as amended), supra note 1 at § 307(b)).
- <sup>72</sup> Blue Book, supra at 12, 36-40.
- Commission Policy on Programming, 20 Rad. Reg. (P &F) 1901, at 1913 (July. 29, 1960) (1960 Program Policy Statement).
- 74 Id. at 1912.
- Primer on Ascertainment of Community Problems by Broadcast Applicants, Part I, Sections IV-A and IV-B of FCC Forms, Report and Order, 27 FCC 2d 650, 651 (1971), amended by 76 FCC 2d 401, 414(1980). This Primer was overruled in 1984 by Revision of Programming and Commercialization Policies, Ascertaiment Requirements, and Program Log Requirements for Commercial Television Stations, Report and Order, 98 FCC 2d 1076, 1116 (1984) (Revision of Ascertaiment Requirements).
- <sup>76</sup> See Revision of Ascertaiment Requirements, supra.
- <sup>77</sup> See Barry Cole & Mal Oettinger, Reluctant Regulators: The FCC and the Broad-CAST AUDIENCE 174 (1978).
- <sup>78</sup> The Prime Time Access Rule was adopted in 1970 and repealed in 1995. See Review of the Prime Time Access Rule, Section 73.658(k) of the Commission's Rules, Report and Order, 11 FCC Rcd 546, 550-53,608 (1995).
- 79 Office of Communication of United Church of Christ v. FCC, 359 F.2d 994 (D.C. Cir., 1966).
- BO Id. at 1009.
- <sup>81</sup> Cable Television Consumer Protection and Competition Act of 1992, Pub. L. 102-385, 106 Stat. 1460, 1461 (1992).
- 82 Id. at 1461-63.
- 83 Id. at 1471-81.
- 84 Turner, supra note 8.
- 85 1960 Program Policy Statement, supra note 73 at 1913.

- Petition of Action for Children's Television for Rulemaking Looking Toward the Elimination of Sponsor. ship and Commercial Content in Children's Programming and the Establishment of a Weekly 14-Hour Quota of Children's Television Programs, Notice of Inquiry and Notice of Proposed Rule Making, 28 FCC 2d 368 (1971).
- <sup>87</sup> *Id*.
- Petition of Action for Children's Television for Rulemaking, Children's Television Report and Policy Statement, 50 FCC 2d 1, 5 (1974) aff'd, Action for Children's Television v. FCC, 564 F.2d 458 (D.C. Cir. 1977) (1974 Policy Statement). Children's Television Report and Policy Statement, supra at 12 (1974), aff'd sub nom. Action for Children's Television supra.
- 89 See 1974 Policy Statement supra at 5.
- <sup>90</sup> Action for Children's Television supra note 88, at 465.
- 91 Petition of Action for Children's Television for Rulemaking, Memorandum and Opinion and Order, 58 FCC 2d 1169 (1975).
- Policies and Rules Concerning Children's Television Programming, Revision of Programming Policies for Television Broadcast Stations, 11 FCC Rcd 10660, 10668 (1996) (citing Television Programming for Children, A Report of the Children's Task Force, (1979)) (1979 Children's Television Report).
- 93 See id. (citing 1979 Childrens Television Report, Vol. 1, at 3).
- <sup>94</sup> Children's Television Programming and Advertising Practices, Notice of Proposed Rulemaking, 75 FCC 2d 138 (1979).
- 95 Children's Television Programming and Advertising Practices, Report and Order, 96 FCC 2d 634 (1984), aff'd sub nom. ACT v. FCC, 756 F.2d 899 (D.C. Cir. 1985).
- 96 Id. at 635, 648, 656.
- Newton N. Minow & Craig L. LaMay, Abandoned in the Wasteland: Children, Television and the First Amendment (1997).
- 98 United States v. Nat'l Ass'n of Broad., 553 F. Supp. 621 (D. D.C. 1982).
- 99 Children's Television Act of 1990, Pub. L. 101-437, 104 Stat. 996 (1990).
- 100 Id. at § 102(b).
- <sup>101</sup> Id. at  $\S$  103(a)(2).
- Policies and Rules Concerning Children's Television Programming, supra note 92 at 10715-727. See also 47 C.F.R. § 73.671.
- 103 Policy and Rules Concerning Children's Television Programming, supra note 92.
- Television Decoder Circuitry Act of 1990, Pub. L. No. 101-431, 104 Stat. 960 (1990) (codified at 47 U.S.C. §303 (a), 330(b)) The FCC has promulgated extensive rules to govern the display of closed captions. Report and Order, Amendment of Part 15 of the Commission's Rules to Implement the Provisions of the Television Decoder Circuitry Act of 1990 Gen. Dkt. 91-1, FCC 91-119 (April 12, 1991). Among other things, these stan-

dards cover caption size, the use of color characters, upper and lower case characters, italics, scrolling, and compatibility with cable scrambling technology.

- 105 47 U.S.C. §303(s).
- 106 47 U.S.C. §713.
- Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility, Report and Order, 13 FCC Red 3272 (1997) and Order on Reconsideration, MM Dkt. No. 95-176 (Sept. 17, 1998).
- 108 47 C.F.R. §79.1(d)(12).
- 109 47 C.F.R. §79.1(d)(11).
- Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1997, Video Programming Accessibility, Report. FCC 96-318, MM Dkt. No. 95-176 (July 29, 1996).
- 111 42 U.S.C. § 2000e et. seq. (mandated first by Section VII of the Civil Rights Act of 1964.)
- <sup>112</sup> See generally National Broad. Co. v. U.S., 319 U.S. 190, 219 (1943)( "the Act gave the Commission...expansive powers").
- <sup>113</sup> Nondiscrimination in the Employment Policies and Practices of Broadcast Licensees, Report and Order, 60 FCC 2d 226, 229-30 (1976).
- <sup>114</sup> See, e.g., National Organization for Women v FCC, 555 F.2d 1002 (D.C. Cir. 1977).
- <sup>115</sup> This authority was upheld by the Supreme Court in NAACP u FPC, 425 U.S. 662, 666-669 (1976).
- 116 See 47 C.F.C. § 73.2080 (b), (c).
- <sup>117</sup> Nondiscrimination in Employment Practices of Broadcast Licensees, 13 FCC 2d at 770 (1968).
- <sup>118</sup> Nondiscrimination in Broadcast Employment, 18 FCC 2d 240 (1969).
- 119 47 CFR § 73.2080(a).
- 120 Id.
- 121 47 C.F.R. § 73.3612.
- See, Review of Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streamlining Proceeding, Notice of Proposed Rule Making, (EEO NPRM) ¶ 9, MM Docket Nos. 98-204, 96-16, (Released Nov. 20, 1998).
- See, e.g., Implementation of the Commission's Equal Opportunity Rules, 9 FCC Rcd 2047, 2049-50 (1994).
- 124 See, e.g., EEO NPRM, supra note 122.
- <sup>125</sup> Lutheran Church-Missouri Synod v. FCC, 141 F.3d 344 (D.C. Cir. 1998), reh'g denied, 154 F.3d 487 (D.C. Cir. 1998).
- 126 EEO NPRM, supra note 122.

<sup>127</sup> Id. ¶¶ 52, 58.

128 Id. ¶¶ 59-60.

# Section III. Recommendations of the Advisory Committee

As the preceding sections suggest, there are great complexities in applying the principles of public trusteeship to the new realities of digital television. The challenges are at once technological, legal, social, political, and economic in nature, and are so intertwined as to create difficult questions for policymakers and broadcasters alike. The Advisory Committee has sought to face these challenges squarely, recognizing that, while the digital television age may introduce new uncertainties, it also holds great opportunities.

The Advisory Committee's inquiry has been necessary because the seemingly simple transition from analog to digital television broadcasting actually entails many complications. Analog broadcasters send one signal, usually 24 hours a day. Digital broadcasters may send one or multiple signals, at many different time periods throughout the day. Some of these signals may be programs; others may involve data transmissions or other broadband and telecommunications services. The vast new range of choices inherent in digital television technology makes it impossible to transfer summarily existing public interest obligations to digital television broadcasting. A key mandate for the Advisory Committee, therefore, has been to suggest how traditional principles of public-interest performance should be applied in the digital era.

A second mandate has been to consider what additional public interest obligations may be appropriate, given the enhanced opportunities and advantages that broadcasters may receive through digital broadcasting. The grant by Congress of the use of digital spectrum to broadcasters is valuable. We are in no position to assess that value in monetary terms. No one knows whether digital television will maintain, much less increase, broadcasters' revenues. If the digital portion of the public airwaves does provide enhanced economic benefits to broadcasters, however, it is reasonable to recommend ways for the public to receive some benefit in return.

Whether or not digital broadcasting results in greater revenues for licensees, it promises to open up exciting new opportunities for meeting important goals for our society. Channels of communication will be more plentiful. The clarity of images will be sharpened and sound quality enhanced. The varieties of television signals that can be transmitted—and the imaginative new programming and information formats—will expand.

The television medium, in short, will become more versatile, flexible, and abundant. The sheer capacity of digital television will also allow specialized interests and needs to be met more effectively. New openings for improving political discourse and invigorating democratic deliberation will be possible. New ways to meet the educational needs of Americans can be developed. The work of schools, libraries, training centers, and distance education can be enhanced. One can imagine new communications venues for diverse groups in each community. Digital broadcast technology also can help improve early warning of impending natural disasters, and enhance the opportunities for individuals with hearing and vision disabilities to receive programming and communications.

Some of these goals, such as disaster notifications and expanded closed captioning, can be achieved at modest additional expense. Others, such as enhancing education, will clearly cost more. In its recommendations, the Advisory Committee explores ways of achieving these goals without placing undue or unreasonable burdens on broadcasters.

Formulating recommendations that could command a broad consensus yet speak with clarity has been a special challenge for this Advisory Committee. The 22 members of this panel represent a diverse range of interests and perspectives. Formulating recommendations is difficult, too, because no one really knows how digital broadcasting will develop. It is unclear when receiver costs will become low enough to attract significant audiences; when digital broadcasting will actually supplant analog broadcasting; and which transmission formats digital broadcasters will choose to offer—single-signal high-definition programming, multiple-channel multiplexing, or any number of data/information services.

The answers to these issues are likely to vary from one region of the country to another, and in major metropolitan areas as opposed to rural communities. Significant technical questions also remain, such as what technical formats will dominate, how advances in screen technologies may enhance viewing, and how improvements in compression technologies may expand channel capacity.

Mindful of these uncertainties, the Advisory Committee has operated under several basic principles in formulating its recommendations. The first is that the public, as well as broadcasters, should benefit from the transition to digital television. Second, flexibility is critical to accommodate unforeseen economic and technological developments.

Third, the Advisory Committee has favored, whenever possible, policy approaches that rely on information disclosures, voluntary self-regulation, and economic incentives, as opposed to regulation. Traditional regulation tends to be inflexible and can generate counterproductive incentives for broadcasters. On the other hand, marketplace forces do not always deliver important social benefits, such as sufficient educational programming for children or adequate attention to public affairs. In such circumstances, government can appropriately play a role.

The Committee's preference for minimal regulation does not mean total deregulation or the elimination of broadcasters' public interest obligations.<sup>1</sup> Broadcasters have a long tradition of commitment to the public interest and have formally affirmed their commitment to serve as

guardians of the public trust in their use of the public airwaves. Congress, the Executive Branch, and the courts have consistently held that public interest obligations for broadcasters are appropriate and required as a condition of using valuable portions of the public airwaves. Those obligations do not disappear in a digital era. With these recommendations, the Advisory Committee hopes public interest service in broadcasting will be continued and enhanced.

The recommendations that follow address ten key areas of concern:

- 1. Disclosure of Public Interest Activities by Broadcasters
- 2. Voluntary Standards of Conduct
- 3. Minimum Public Interest Requirements
- 4. Improving Education Through Digital Broadcasting
- 5. Multiplexing and the Public Interest
- 6. Improving the Quality of Political Discourse
- 7. Disaster Warnings in the Digital Age
- 8. Disability Access to Digital Programming
- 9. Diversity in Broadcasting
- 10. New Approaches to Public Interest Obligations in the New Television Environment

#### CORE RECOMMENDATIONS OF THE ADVISORY COMMITTEE

#### Disclosure of Public Interest Activities by Broadcasters

1. Digital broadcasters should be required to make enhanced disclosures of their public interest programming and activities on a quarterly basis, using standardized check-off forms that reduce administrative burdens and can be easily understood by the public.

Effective self-regulation by the broadcast industry in the public interest requires the availability to the public of adequate information about what a local broadcaster is doing. Some valuable information is currently made available. For example, all television broadcasters must prepare and place in their public file separate quarterly reports on their non-entertainment programming responsive to ascertained community needs and on their children's programming.<sup>2</sup> The Advisory Committee recommends that the Federal Communications Commission require that these reports be augmented by the addition of more information on stations' public interest programs and activities. That information should include but not be limited to contributions to political discourse, public service announcements, children's and educational programming, local programming, programming that meets the needs of underserved communities, and community-specific activities. The Advisory Committee does not intend that such efforts

should be onerous to broadcasters, but they should make readily available the most important information for community groups and other members of the public to assess. Information reporting requirements established for implementing the Children's Television Act (CTA) are a useful model. Under the CTA, broadcasters must identify and describe the programming, when it was aired, and how it meets the broadcaster's obligation to serve the public. They are encouraged to submit electronic reports of this programming via the Internet. A possible form using a checkoff approach is included in Appendix A.

At the same time, digital television broadcasters should take steps to distribute such public interest information more widely, perhaps through cooperation with local newspapers and/or local program guides so that viewers can more readily identify and evaluate the efforts local broadcasters are making to address their interests. Similarly, many local television stations now maintain Internet websites where they could post on a regular basis this kind of information.

Greater availability of relevant information will increase awareness and promote continuing dialogue between digital television broadcasters and their communities and provide an important self-audit to the broadcasters.

#### Voluntary Standards of Conduct

2. The National Association of Broadcasters, acting as the representative of the broadcasting industry, should draft an updated voluntary Code of Conduct to highlight and reinforce the public interest commitments of broadcasters.

The Advisory Committee believes that most broadcasters feel a strong commitment to the public interest and their responsibilities as public trustees, and behave accordingly. To reinforce public service interests and standards, the National Association of Broadcasters adopted a "Code of Conduct" that set out appropriate principles and standards, and recognized those stations that adhered to the Code. The Code was abandoned in 1982 after the Department of Justice objected to certain aspects of the Code's advertising provisions. (See Section II and Appendix B for more on this history.)

A new industry statement of principles updating the 1952 Code would have many virtues. The most significant one is that it would enable the broadcasting industry to identify the high standards of public service that most stations follow and that represent the ideals and historic traditions of the industry. A new set of standards can help counteract short-term pressures that have been exacerbated by the incredibly competitive landscape broadcasters now face, particularly when compared to the first 30-some years of the television era. Those competitive pressures can lead to less attention to public issues and community concerns. A renewed statement of principles can make salient and keep fresh general aspirations that can easily be lost in the hectic atmosphere and pressures of day-to-day operations.

To ensure that broadcasters fulfill their obligations as public trustees, we endorse self-regulation by knowledgeable industry people. This could serve as an effective tool to minimize government regulation. To that end, we recommend that the National Association of Broadcasters, acting as the representative of the broadcasting industry, draft a new set of principles or statement of standards. The Advisory Committee hopes that the NAB will develop and recommend self-regulatory standards to and for the industry. The standards should be drafted and implemented by the NAB and the industry, preferably with input from community and public interest leaders, without pressure, interference, or direct or indirect enforcement by the government. The public, the marketplace, and the court of public opinion can then judge their efficacy.

What might a set of Standards of Conduct look like in the digital age? We include in Appendix B a model draft, done by an Advisory Committee working group under the leadership of Professor Cass Sunstein of the University of Chicago Law School. Another model we have included is the Statement of Principles adopted by the NAB Board of Directors to replace the old Code, which can be found in Appendix C.

# Minimum Public Interest Requirements

The FCC should adopt a set of minimum public interest requirements for digital television broadcasters.

The Advisory Committee believes that having the broadcast industry adopt a strong set of voluntary standards of conduct, created and administered by the National Association of Broadcasters, would be a highly desirable step toward creating a digital world meeting the needs and interests of the American public. The Advisory Committee nevertheless recognizes an additional reality: not all broadcasters will subscribe to voluntary guidelines. Importantly, a large number of broadcast stations—perhaps as many as 400—are not members of the NAB and thus would not be affected by an industry-drafted and administered code.

Therefore, despite the Committee's stated preferences for voluntary self-regulation and maximum broadcaster flexibility, the Advisory Committee recommends that the FCC adopt a set of mandatory minimum public interest requirements for digital broadcasters. These minimum standards should be drafted in a way that would not impose an undue burden on digital broadcast stations, and should apply to areas generally accepted as important universal responsibilities for broadcasters—as well as for cable and satellite providers. Any set of minimum standards should be drafted by the FCC in close conjunction with broadcasters and representatives of the public, and phased in over several years beginning with stations' transmission of digital signals.

We have a broad consensus on the Advisory Committee that there should be minimum standards. However, our Advisory Committee is not unanimous in its recommendation about

what those standards should be, or what form they should take. Some of the disagreements in this regard, including whether areas like free political time should be included in minimum standards, are expressed in the individual views of Advisory Committee members found in Section IV in this report. More generally, we have sharply different views about the specificity of minimum standards. Many of our committee members endorse the idea of detailed standards with defined numerical guidelines of performance, believing that the only way to make standards work and to evaluate whether stations meet them is to make the standards specific. However, others, including many broadcasters on the panel who endorse the concept of minimum standards, object vociferously to that idea, believing that detailed standards with numerical quotas reflect an outdated model of regulation, and simply do not fit the diverse character of digital television stations around the country.

After much discussion, and having reviewed the product of a working group of the Advisory Committee led by James. F. Goodmon of Capitol Broadcasting, the Committee recommends the following categories for minimum standards for digital broadcasters:<sup>3</sup>

- 1. Community Outreach. Digital stations should be required to develop a method for determining or "ascertaining" a community's needs and interests. This process of reaching out and involving the community should serve as the station's road map for addressing these needs through news, public affairs, children's and other local programming, and public service announcements. Further public input should be invited on a regular basis through regular postal and electronic mail services. The call for requests for public input should be closed captioned. The stations should regularly report during the year to the public on their efforts.
- 2. Accountability. Whatever the mandatory minimums, stations should report quarterly to the public on their public interest efforts, as outlined in recommendation 1, above.
- 3. Public Service Announcements. A minimum commitment to public service announcements should be required of digital television broadcasters, with at least equal emphasis placed on locally produced PSAs addressing a community's local needs. PSAs should run in all day parts including in primetime and at other times of peak viewing.
- 4. Public Affairs Programming. A minimum commitment to public affairs programming should be required of digital television broadcasters, again with some emphasis on local issues and needs. Such programming should air in visible time periods during the day and evening. Public affairs programming can occur within or outside regularly scheduled newscasts, but is not defined as coverage of news itself.
- 5. Closed Captioning. A digital broadcast station should provide closed captioning of PSAs, public affairs programming, and political programming. Captioning in these areas should be phased in over the first 4 years of a station's digital broadcasts, where doing so would not impose an undue burden, but should be completed no later than the FCC-imposed deadline of 2006 for captioning most programming.

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Our recommendation for mandatory minimum standards stands alone. But it also expresses a recognition that in the digital era it is in the public interest for television broadcasting, which meets significant public interest obligations, to reach all American homes as soon as possible. To "preserv[e] the benefits of free, over-the-air broadcast television" in a digital world, the Advisory Committee recommends that appropriate governmental authorities adopt ways, including digital "must carry" by cable operators, to expedite the widespread availability of digital broadcast television to the public. Congress has required cable operators to carry broadcasters' digital signals. In addition, the intent of the Telecommunications Act of 1996 was to expedite the advance of digital broadcasting.<sup>5</sup> If it is in the public interest to have digital television broadcasting available as soon as possible to the largest number of Americans, policies that encourage that availability should themselves be encouraged, in a manner that does not disadvantage smaller broadcasters as compared to larger broadcasters, and that recognizes the important role of public broadcasting. The Advisory Committee recognizes that implementation of digital "must carry" poses many difficult questions, including technological ones, which the FCC is exploring in an ongoing rulemaking.

# Improving Education Through Digital Broadcasting

4a. Congress should create a trust fund to ensure enhanced and permanent funding for public broadcasting to help it fulfill its potential in the digital television environment and remove it from the vicissitudes of the political process.

4b. When spectrum now used for analog broadcasting is returned to the government, Congress should reserve the equivalent of 6 MHz of spectrum for each viewing community in order to establish channels devoted specifically to noncommercial educational programming. Congress should establish an orderly process for allocating the new channels as well as provide adequate funding from appropriate revenue sources.

Broadcasters that choose to implement datacasting should transmit information on behalf of local schools, libraries, community-based nonprofit organizations, governmental bodies, and public safety institutions. This activity should count toward fulfillment of a digital broadcaster's public interest obligations.

The digital age will open up major new avenues for broadcasting information and entertainment to Americans, creating many new lanes on the information superhighway. In theory, the expansion in information resources and avenues should result in the marketplace driving a vast augmentation of programming in all areas, including those that serve the public interest. For

the most part, it works well, as witnessed by the substantial amount of quality programming aired by commercial analog broadcasters.

But the Advisory Committee recognizes that the market alone may not provide programming that can adequately serve children, the governing process, special community needs, and the diverse voices in the country. To be sure, cable television's multiple channels have served commendably some of these needs, such as through Nickelodeon for children or C-SPAN for government and politics. But cable channels like these are not available to a large share of the populace, either because they are not carried on many cable systems or because cable itself is neither universally available nor free. Moreover, many of these channels are commercial.

#### 4a. Public Broadcasting

Free, over-the-air broadcasting has the virtue of being readily available to virtually all the people in America, but the marketplace dictates of commercial broadcasters do not automatically accommodate the public interest programming needs of our diverse population. That is why public broadcasting was created and why it has served the country so well. The role that public broadcasting has played in the analog era does not disappear in a digital age. To the contrary, we believe that public broadcasting will continue to be a vital link for many Americans who want access to high quality cultural, public affairs, children's, and educational programs—indeed, that the exciting capabilities of the digital spectrum in terms of high-definition pictures, multiple signals, data transmission and interactivity should serve to enhance dramatically the value of public broadcasting to the country.

But there is a major challenge ahead for public broadcasting to fulfill its potential in the digital age. The startup costs of converting to digital signals are high, and just as significantly, the costs of producing digital programming are 10 to 20 percent higher than those of comparable analog programming. (See Section I.) We believe that public broadcasting will need the funding necessary to produce quality digital programming and to promote it so that viewers know what is available to them. Thus, we urge Congress to consider ways to provide enhanced funding for public broadcasting in the digital era, and to create a trust fund to make such funding assured and permanent, and to move public broadcasting out of the whipsaw of the political arena. By "public broadcasting," we mean the public broadcasting system, along with independent noncommercial programmers. If Congress does create a public broadcasting trust fund with a base ample enough to fund public broadcasting in the digital age, we join Representatives Billy Tauzin, Edward Markey, and others in urging that public broadcasting reduce or eliminate the practice of "enhanced underwriting" that closely resembles full commercial advertising.<sup>6</sup>

### 4b. The Creation of New Noncommercial, Educational Channels

Even if the steps described above are taken, we believe that there is more that can be done to exploit the move on the spectrum from analog to digital broadcasting to meet public interest needs. In particular, we recommend carving out space on the spectrum for channels devoted

specifically to noncommercial educational programming and services, and funding them in ways that will vastly expand the educational opportunities for all Americans, and particularly for those now underserved by information resources.

The opportunity for digital television to improve student achievement has extraordinarily high stakes for our Nation. The acquisition and use of knowledge is a major resource for our society in the coming century and is pivotal for our quality of life, our economic development, our democracy, and indeed our security. The Nation's success depends upon how effectively all members of our society are prepared to use information technologies, which in turn means that the proficiency of our citizens depends upon the quality of our educational offerings and the capacity of students to utilize information technologies for educational ends. We put our children at a competitive disadvantage in the global economy if we do not invest wisely in educational resources.

The capacity of digital television to expand the flow of information and communication to and within our school systems, and to the population as a whole will require new and imaginative decisions on the dedication of entire channels or sub-channels, and the interaction between programming and datacasting in the digital form.

Under current law, when digital channels are up and running and reaching substantial numbers of people, the existing analog channels are to be turned back to the government, repacked and auctioned off.<sup>7</sup> We recommend that when this process occurs, the equivalent of one 6 megahertz channel in each viewing area be reserved instead for noncommercial educational purposes—defined as preschool, elementary, secondary, and postsecondary education, lifelong learning, distance learning, literacy, vocational education, children's educational, public affairs, multicultural, arts and civic education, and other programming directed to the educational needs of underserved communities.

We recommend the creation of an orderly process to allocate these channels in a way that will serve each viewing community. A very high priority should be given to ensuring that these educational channels serve underprivileged and minority communities that typically have less access to the educational opportunities present in the information age. One option would be to give the first opportunity to claim and run each educational channel to the local public television station or stations. Partners could include universities, libraries, minority organizations, other noncommercial broadcasters, and other groups. However, the license to operate the channels should be neither automatic nor eternal. The applicants would first have to draft and submit a plan to the FCC indicating how they would involve the local community, including schools, universities, libraries, and diverse and underrepresented groups, what kinds of noncommercial educational programming they might produce and air, and how the new channel devoted to education would be different from their existing public television stations.

The FCC would either accept or reject the plans; if rejected, the educational channel space would be open for application by others, including schools, universities, libraries, minority organizations, other broadcasters or other groups, under clear FCC guidelines made publicly available prior to the application process. The licenses issued would be for finite periods; the

record of each station in these areas would be reviewed and considered at license renewal time.

We make this recommendation with one important condition. We believe that spectrum space alone, despite its enormous intrinsic value, will be unable to reach its potential if there are not adequate resources to provide appropriate and engaging programming. New channels devoted to education can be of enormous benefit to the country if they have adequate financial backing. We recommend that Congress provide such funding, using as sources revenues from the auction of other spectrum, including the remainder of the analog spectrum; some of the fees from ancillary and supplementary services by digital broadcasters required by current law; and a portion of the fees we recommend implementing for the use of multiple commercial-driven broadcast channels by digital broadcasters.

The Advisory Committee is very much aware that revenues from auction of the analog spectrum and fees from ancillary and supplementary services are already "scored" under the Balanced Budget Act of 1997 and the 1996 Telecommunications Act, and are destined for the General Treasury. We urge Congress and the President to reconsider the destination for these funds—and indeed, urge Congress to adopt the general principle that revenues from auctions of broadcast spectrum and from any fees from broadcasters be used to protect and enhance the public interest in broadcasting. But if Congress and the President decide not to alter the path of these revenues, we urge them to find other sources of revenue for a trust fund for public broadcasting and for the dedicated education channels, whether from industry sources or general revenues. We also urge that any funding mechanism include a provision for matching funds from local communities.

We have two other recommendations in this area. First, the U.S. Department of Education should be encouraged to work with educational programmers to suggest programming and datacasting ideas, once again with a particular sensitivity to the educational needs of minorities and other underserved communities. Second, some portion of the fees collected for these educational purposes, no more than 20 percent, should be set aside for bids by all broadcasters, including commercial ones and minority ones, to produce and air educational programming that would otherwise not be commercially feasible. That revenue should be specifically targeted to support the creation and promotion of programming from diverse and independent producers to air on noncommercial channels, with a particular emphasis on addressing the interests and needs of minorities and other underserved populations. This portion of the fees should be administered by a foundation, perhaps based on the model of the Children's Television Endowment mandated by the Children's Television Act of 1990.

#### 4c. Datacasting

One of the more exciting new capabilities made possible by digital television technology is datacasting, a transmission mode that allows broadcasters to deliver vast amounts of information in a variety of formats to digital television sets and computers. Broadcasters that choose to datacast will be able to send information either alone or in conjunction with audio or video

transmissions. The information transmitted could be stock quotations, sports statistics, government information, weather updates, information to accompany video programming, and educational materials to be used with instructional programming, among other possibilities.

Datacasting is also notable for making interactive television feasible. Viewers can engage with programming that is "pushed" at them in the traditional fashion, but also with information content that they can "pull" out of the digital transmission. In this way, important aspects of television broadcasting and the Internet can be combined in innovative ways.

The potential applications of datacasting for education are also significant. Datacasting could transmit course-related materials, such as lesson plans and teacher and student guides, as part of instructional video programming. Schools, libraries, and other educational institutions could use datacasting as a large "digital pipe" to deliver computer-based educational materials during off-peak hours. Public television stations are already developing innovative applications of datacasting for use in conjunction with their video programming as well as in entirely new instructional applications.

Datacasting can also serve a variety of government and public interest needs. Some local government agencies have large amounts of information that could be delivered via datacasting. During weather-related crises, the service could be programmed to track storms house-by-house, and provide viewers with information about when a storm is likely to hit their area.

With datacasting's vast potential to serve, the Advisory Committee recommends that broadcasters develop their plans to implement datacasting with the public interest in mind. Broadcasters should work with local educational and public safety institutions to provide community broadcasting services. The types of information that might be transmitted include:

- Educational programming from preschool through higher education;
- Schedule and logistical information for voting, public hearings, and other governmental activities;
- Public school information;
- · Public safety and health announcements;
- Snow emergency information;
- Public text bulletin boards (volunteer opportunities, nonprofit meetings, etc.);
- · Community "radio" programming in multiple languages;
- Public access video programming;
- Local library information; and
- Open publication of citizen "letters to the editor."

It is unlikely that datacasting of public interest information would impose an undue burden on broadcasters. Such information consumes little bandwidth, generally less than 1 percent of

the total 6 MHz spectrum provided to each digital broadcaster. Digital television broadcasters should be encouraged to offer data broadcasting services on a not-for-profit basis to appropriate community organizations, and have this activity count as a public interest activity.

#### Multiplexing and the Public Interest

5. Digital television broadcasters who choose to multiplex, and in doing so reap enhanced economic benefits, should have the flexibility to choose between paying a fee, providing a multicasted channel for public interest purposes, or making an in-kind contribution. Given the uncertainties of this still-hypothetical market, broadcasters should have a 2-year moratorium on any fees or contributions to allow for experimentation and innovation. Small-market broadcasters should be given an opportunity to appeal to the FCC for additional time. The moratorium should begin after the market penetration for digital television reaches a stipulated threshold.

Nobody knows what the digital future holds for broadcasters, their viewers, their advertisers, or their competitors. It is true that broadcasters were granted use of an extremely valuable piece of the electromagnetic spectrum to transition to the digital age. It is also true that to do so, broadcasters will have to make large capital outlays to purchase equipment, erect towers or antennas and convert programming to digital formats—with no clear picture of what will happen to their revenue. Congress and the FCC originally envisioned this grant of spectrum as a one-for-one exchange, with broadcasters using it primarily for a single high-definition television (HDTV) signal. Under this scenario, the rationale for greatly increased public interest obligations or a massive new payment would be diminished. However, if broadcasters decide to use their digital real estate for multiple commercial channels (whether or not they are high definition), each generating its own revenue stream, then it is appropriate to consider whether the public interest requires a different formula. This is especially true since, as compression technology evolves, the number of channels possible may increase substantially, to six, eight or more.

The Telecommunications Act provided for the FCC to assess fees from digital broadcasters who get paid for ancillary or supplementary services—subscription channels, paging services, pay-per-view and the like. It does not prohibit broadcasters from using multiple signals—multicasting several over-the-air channels that get revenue from commercials. There is good reason to let the marketplace settle whether a single high-definition broadcast signal, multiple standard definition channels, datacasting, or various combinations of them, will work best. Innovation and testing the markets in this area should not be unreasonably stifled, particularly since multichannel broadcasting could provide long sought new competition to cable and other multichannel program distributors.

Additionally, it is conceivable that broadcasters who apply multiplexing will simply cannibalize their single signal, achieving no additional revenues or perhaps merely stabilizing current

market share. We recognize these facts. We also accept the principle that there should be some additional benefit to the public if its grant to broadcasters of the valuable digital television spectrum results in enhanced economic benefits for broadcasters.

We recommend the following: Once digital television reaches a significant level of penetration as stipulated by the FCC, begin a 2-year moratorium during which digital broadcasters can experiment and explore multiplexing options in the marketplace without any undue hindrance. Small-market broadcasters should be given an opportunity to appeal to the FCC for additional time if they lack the resources for experimentation with multiple channels. Thereafter, if a broadcaster elects to multicast, and in doing so reaps the benefits noted above, Congress or the FCC should apply a menu of options to that multicaster. The menu would start with a fee payment, either contingent upon the extra channels reaching a particular revenue goal or on some other formula judged fair and appropriate by the FCC.

In lieu of the fee, broadcasters could turn to alternatives. They could dedicate one of their multicasted channels to noncommercial public interest purposes, which would have to include a commitment to provide robust programming and access for local voices, or lease one such channel at below market rates to an unaffiliated programmer who is local and has no financial or other interest in a broadcast station. They could provide in-kind contributions, such as free commercial time to political parties, or studio time and technical assistance to community groups producing PSAs or public interest programming, equal in market value to the assessed fee. Whatever requirements are assessed must be attentive to the risk that they might have unintended harmful consequences, such as discouraging multiplexing at all. And such requirements should be sensitive to the opportunities multiplexing can offer for underserved constituencies to speak in their own voices, and for enhanced minority participation in broadcasting, including opportunities in management and ownership. The FCC should make clear that if a broadcaster uses its extra capacity for public interest purposes like an all-news channel or children's educational channel, it would not incur extra obligations.

If a multiplexing broadcaster chooses either to (1) pay a fee in lieu of its additional public interest obligations; (2) dedicate a multicast channel for noncommercial public interest purposes; or (3) lease a multicast channel to an unaffiliated local programmer who has no financial or other interest in a broadcast station, it would not have to apply other nonstatutory public interest obligations to multiplexed signals other than its "primary" channel (unless the broadcaster could demonstrate to the FCC the public interest benefit of proportionally spreading specific obligations around the multicast channels. For example, it may prove advantageous to give a broadcaster flexibility to place political messages on whatever channels attract the right demographic audience to achieve maximum benefit, in ways that will accommodate the rights of candidates under the law.) We further recommend that, like the fees to be collected for ancillary and supplemental services, the fees collected for multiplexing be used to enhance the public interest in broadcasting, by applying them to educational or children's programming, using them as part of campaign finance reform for political airtime, or in some other fashion. In any event, these fees should not simply be used for deficit reduction or placed in the Treasury's general revenue accounts.

#### Improving the Quality of Political Discourse

6a. If Congress undertakes comprehensive campaign finance reform, broadcasters should commit firmly to do their part to reform the role of television in campaigns. This could include repeal of the "lowest unit rate" requirement in exchange for free air time, a broadcast bank to distribute money or vouchers for airtime, and shorter time periods for selling political air time, among other changes.

6b. The television broadcasting industry should voluntarily provide 5 minutes each night for candidate-centered discourse in the thirty days before an election.

6c. Blanket bans on the sale of air time to all state and local political candidates should be prohibited.

That there are serious problems with American political campaigns and the system of campaign finance is indisputable. The "barriers to entry" for candidates to run, especially to challenge incumbents, are high and growing. A major reason is the burgeoning costs of getting messages across in a cacophonous society that consists of large and diverse districts and states. The quality of political discourse is declining. The problems in the campaign finance system are rooted in existing laws, the changing nature of communications in our society, and many other complicated factors. One of them is the growing role of television in campaigns, and its emergence as the single largest category of spending in elections. Television advertising expenditures increased 800 percent between 1970 and 1996, more than any other category in campaign finance.9

Candidates have turned to television advertising, especially on broadcast television, because in many areas, it is the best medium to reach voters. They will continue to do so. At the same time, broadcast television remains the medium of choice for voters to learn about the campaigns and the candidates. Thus, any significant change in the campaign finance system will have to address the issue of the role of television. But no reasonable campaign finance reform can focus on television alone, or put the central burden for improving our political system on the backs of broadcasters. Reform must look at all the elements of the campaign system, recognizing broadcasting as one of them, albeit a vital one.

With some exceptions, broadcasters have played a major role in providing coverage, airtime and resources to enhance campaigns and provide voters with information about candidates and campaigns. The public interest is clearly served by a substantial role for broadcasters in this area. The digital age provides an opportunity to find enhanced ways for broadcasters to serve this interest. We believe that a better balance can be struck which can serve broadcasters, the political system and the public interest as well.

Broadcasters have frequently shown a commitment to providing a voice for candidates so that voters can evaluate their alternatives and so that campaigns can have an appropriate level of real debate and give-and-take to enhance the electoral and governing processes. Innovations by the major networks and station groups like Belo, Hubbard, and Post-Newsweek have been models for other broadcasters. These efforts should be replicated and expanded upon. The industry should redouble its efforts to enhance campaign discourse.

In a democracy that aspires to be deliberative, television can do a great deal if it deals with political issues in a serious way. Engagement with serious issues can be educative; it can increase citizen involvement in political issues; it can make citizens better able to choose. Efforts in this regard should be designed not just to reduce some of the problems faced by candidates with limited resources, but also as a method to ensure that the broadcasting system, private as well as public, helps to promote democratic ideals. To these ends, we recommend three steps in the area of political discourse:

#### 6a. A Broadcast Industry Challenge to Congress on Campaign Finance Reform

First, we call on broadcasters to issue a public, collective challenge to Congress: If Congress passes comprehensive campaign finance reform, broadcasters will commit firmly and clearly to do their part to reform the role of television in campaigns. As we note above, television is only one part of a campaign system filled with serious problems. It is not reasonable to expect broadcasters alone to provide all the answers, or to make as the central component of reform Federal mandates upon broadcasters. But it is equally unreasonable to expect any comprehensive approach to campaign finance reform to ignore television and the role of broadcasters. Therefore, if Congress tackles comprehensive reform, which means including areas like the role of soft money, issue advocacy, the role of parties, contribution limits, the costs, length and tone of campaigns, broadcasters will pledge to work with Congress and other groups to develop proposals to include broadcaster commitments to improve political discourse and provide opportunities for candidates to get their messages across, and will support such reforms as part of the congressional reform package.

The Advisory Committee recommends the following options to consider:

1. Repeal the "lowest unit rate" requirement in return for some free time. One option would be an exchange: the repeal of lowest unit rate in return for a commitment by broadcasters to provide some free time (one suggestion is 1 minute of comparable free time for each 2 minutes of time sold) in return for paid time at market rates. The so-called lowest unit rate, the mandated discount advertising rate for candidates<sup>10</sup>, is a complex and cumbersome system that clearly does not work very well. It does not work for candidates, who are confused by the system, and whose time-buying practices often make the lowest unit rate meaningless or superfluous. It can be a bureaucratic nightmare for broadcasters, with extensive reporting requirements and frequent lawsuits from candidates convinced they are being cheated. In the digital age, lowest unit rate becomes even more cumbersome and costly.

With the uncertainty and fluidity that will characterize commercial time and time-buying in the digital era, it makes sense to let the market dictate the costs of campaign commercial time. But a simple repeal of lowest unit rate would exacerbate the costs of campaigns, not make it easier to create more opportunities for discourse. The best approach would be to exchange the repeal of lowest unit rate for a simple and better approach on political time—one in which those broadcasters who would be able to air political advertisements at market rates would provide some free time for the paid political time they sell at market rates. Congress could legislate the details of this system, or could delegate the duty to the FCC as the expert agency.

To be sure, this simple exchange would not solve the money chase or reduce overall the costs of campaigns. In the context of an overall campaign finance reform that addressed such issues as soft money and overall contribution limits, this change could be a significant component to making the system work better.

2. Create a broadcast bank, providing money or vouchers for time for candidates and parties. A second option would be the creation of a broadcast bank, money or vouchers that could be distributed to parties and candidates for the purchase of radio and television time. The broadcast bank could be funded in many ways. Some resources could come from the fees paid by broadcasters for multiplexing or for ancillary and supplementary services. One component could be from a provision of time by broadcasters as their contribution to overall campaign reform.

How would the time be distributed? One model would have half the time going to the political parties to distribute to candidates as they see fit, and half the time going to candidates who raise sums from small individual donors, as matching grants. Those details, of course, would have to be legislated by Congress or delegated by Congress to the FCC as the expert agency.

3. Change requirements governing sale and use of discounted broadcast time to shorten the time period of its availability and expand the length of the candidate's appearance on the air. There are other options involving broadcasting that could improve the campaign process, perhaps in conjunction with the ones above. One would be for Congress to shorten the period of time during which broadcasters must sell time to candidates. Another is to require that candidates appear in the commercials they air. Many feel that a candidate stating his or her own case, rather than through the kinds of slickly produced, almost anonymous ads that so predominate today, would greatly reduce the negative tone of current campaigns.

There are undoubtedly other ideas for broadcasters to fulfill their part of this bargain if their challenge succeeds. But the challenge obviously requires a clear, unambiguous, and meaningful statement by the NAB and/or a representative coalition of important individual broadcasters and broadcast groups for this recommendation for voluntary action to succeed. The acceptance of this recommendation by the broadcasters on the Advisory Committee, who represent many facets of the industry, is a heartening sign that the industry will indeed respond by organizing such a challenge, thus avoiding the criticism that the promise of voluntary action is a hollow one.

#### 6b. Airtime for Candidate-Centered Discourse

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Our second recommendation for improving political discourse is for a critical mass of the television broadcasting industry to provide 5 minutes each night for candidate-centered discourse in the 30 days before an election. There are creative ways to improve political discourse, provide opportunities for candidates to get messages across to voters and to enhance voter understanding without heavy monetary costs to broadcasters, regulation of the content of programming, or without it being a kind of programming that will cause viewers to turn away. A broadcaster would make a commitment of 5 minutes for 30 nights (between 5 p.m. and 11:35 p.m., or the appropriate equivalents in Central and Mountain time zones.) We recommend a process with maximum flexibility for broadcasters in this area. Stations would choose the candidates and races, Federal, State and local, in the election that deserved more attention.

We recommend that Congress give the FCC the authority to waive the "equal opportunities" requirements of Section 315(a) of the Communications Act where it is necessary to allow the broadcasters to give time only to major candidates in a race, or to give time only to one candidate if one or more opponents decline the offer of time. Stations would choose the format(s), with experimentation encouraged. Formats might include giving candidates one minute of airtime to get a message across; conducting "mini-debates;" or doing brief interviews with the candidates. The 5 minutes need not be in a contiguous block, but we hope the 5 minutes will not be subdivided into such short segments that serious discourse is precluded. This candidate-centered discourse could occur within station newscasts, but would not have to do so. If broadcasters chose to make the time available within newscasts, they could provide the 5 minutes each night without giving up a single minute of commercial time.

We do not intend for this recommendation to supersede the fine efforts of many broadcasters to improve political discourse in their own communities; we hope the proverbial thousand flowers bloom. But we see many advantages in the widespread adoption of this plan. For a modest commitment of time during a brief period each election cycle, broadcasters could provide an immense contribution to the political process and campaign discourse. If every station made this commitment during the period when voters pay the most attention to elections, it would send a powerful signal that elections matter. Not all stations would choose the same races and candidates to cover, but no doubt there would be considerable overlap. In this way, many candidates who otherwise would have no opportunity at all to address a larger audience would be given that chance, probably on several occasions at different times, and via different formats; likewise, many important races that are ignored in campaign season would have a chance to be covered.

We further urge that this commitment, of five minutes a night for thirty nights, be adopted by cable, satellite, radio and other video and audio programmers. And we recommend that this effort not be delayed until the full implementation of digital broadcasting; efforts in this regard should begin in 2000, allowing experimentation with formats and lengths to go on before the digital era.

# 6c. Blanket Bans of the Sale of Air Time to All State and Local Candidates

The third recommendation is that the FCC should prohibit broadcasters from adopting blanket bans on the sale of time to all State and local political candidates. In doing so, we are not recommending that broadcasters be required to sell time to candidates for every State and local office, or to any particular State or local candidate. We are recommending that broadcasters be prohibited from refusing to sell any time to any candidate for State and local office. We recognize that broadcasters in election periods can have difficulty finding enough commercial time in their inventories to satisfy their regular commercial customers and Federal candidates who have a right to reasonable access, especially in major metropolitan markets where broadcast service areas may include portions of several States. We also recognize that the application of the equal opportunities and lowest unit rate provisions of the Communications Act greatly complicate the practical ability of a station to hold itself out as being willing and able to sell advertising time to all candidates in the multitude of elections held simultaneously in the service area of many broadcast markets.

But the need to balance the demands from applicants for commercial time should not be used to justify a blanket ban on all advertising for State and local offices. Broad blanket policies of this sort make it difficult for local citizens to be informed about the political races that may have the greatest impact on their lives.

## Disaster Warnings in the Digital Age

7. Broadcasters should work with appropriate emergency communications specialists and manufacturers to determine the most effective means to transmit disaster warning information. The means chosen should be minimally intrusive on bandwidth and not result in undue additional burdens or costs on broadcasters. Appropriate regulatory authorities should also work with manufacturers of digital television sets to make sure that they are modified to handle these kinds of transmissions.

Broadcasters have always taken seriously their fundamental public interest responsibility to warn viewers about impending natural disasters and to keep them informed about disaster-related events. Digital technology will provide many new and innovative ways to transmit warnings to people at risk, including ways to warn individuals who have hearing and vision disabilities, and even to pinpoint specific households or neighborhoods at risk. According to the U. S. Geological Survey's Working Group on Natural Disaster Information Systems, 12 most of these innovations will require minimal use of the 6 megahertz bandwidth available to digital broadcasters. Broadcasters should work with appropriate emergency communications specialists and manufacturers to determine the most effective means to transmit important

information that will be minimally intrusive on bandwidth and not result in undue additional burdens or costs on broadcasters.

The Advisory Committee also recommends that the appropriate regulatory authorities work with manufacturers of digital television sets to make sure that they are modified appropriately to handle these kinds of transmissions, to avoid the excess costs of retrofitting.

# Disability Access to Digital Programming

8. Broadcasters should take full advantage of new digital closed captioning technologies to provide maximum choice and quality for Americans with disabilities, where doing so would not impose an undue burden on the broadcasters. These steps should include the gradual expansion of captioning on PSAs, public affairs programming, and political programming; the allocation of sufficient audio bandwidth for the transmission and delivery of video description; disability access to ancillary and supplementary services; and collaboration between regulatory authorities and set manufacturers to ensure the most efficient, inexpensive, and innovative capabilities for disability access.

The Telecommunications Act of 1996 mandated that broadcast and cable programming be fully accessible through the provision of closed captioning.<sup>13</sup> Recently, the FCC promulgated regulations to implement Section 305 of the Act, requiring 100 percent of new television programming to be captioned over an 8-year period, and 75 percent of "pre-rule" programming to be captioned over a 10-year period.<sup>14</sup> The obligation to provide captioning access will, of course, continue into the digital era. The 1990 Television Decoder Circuitry Act requires that new television technologies, such as digital technologies, be capable of transmitting closed captions.<sup>15</sup> Passage of this legislation and Section 305 reflect Congress' intent to ensure that our Nation's 28 million Americans who are deaf or hard of hearing continue to receive access to televised news, information, education, and entertainment in the digital age.

Digital technology will open new avenues to enhance and expand captioning access. For example, the ability to alter the size of captions will enable viewers to see both captions and other text appearing on a television screen. The Advisory Committee recommends that broadcasters take full advantage of new digital closed captioning technologies to provide maximum choice and quality for caption viewers, and to work to make captioning in the digital age functionally equivalent to audio transmissions.

The FCC's rules on captioning currently exempt certain categories of programming, including advertisements under 5 minutes, certain late-night programming, and certain local non-repeat programming.<sup>16</sup> Thus, benefits derived from recommendations made elsewhere in this

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Report—for example, recommendations made with respect to PSAs, public affairs programming, and political discourse—will not reach deaf and hard-of-hearing viewers under existing FCC rules. It is for this reason that we have included within our minimum public interest requirements a requirement for the gradual expansion of captioning on PSAs, public affairs programming, and political programming, where doing so would not impose an undue burden on a digital television broadcaster.

Section 305 of the Telecommunications Act also directed the FCC to conduct an inquiry into the provision of video description on video programming.<sup>17</sup> Video description provides a narration for blind and visually disabled viewers that consists of verbal descriptions of key visual elements in a television program, which are inserted into natural pauses in the program's dialogue. Utilization of video description as a form of providing access has been hindered by the analog standard, which only permits delivery of descriptions via the secondary audio program channel. In contrast, digital technology offers multiple audio channels, with significantly greater bandwidth, that can more easily accommodate video descriptions. We recommend that broadcasters allocate sufficient audio bandwidth for the transmission and delivery of video description in the digital age to make expanded use of this access technology technically feasible.

The Telecommunications Act of 1996 allows broadcasters to provide ancillary and supplementary services using a portion of the digital spectrum.<sup>18</sup> The Advisory Committee recommends that broadcasters ensure that the provision of ancillary and supplementary services not impinge upon the 9600 baud bandwidth currently set aside for captioning of digital programs At the same time, we recommend that as broadcasters explore new digital technologies, they vigorously explore ways to expand access to these ancillary and supplementary services by individuals with disabilities. The provision of these services, which as noted, may include new kinds of video services, computer software distribution, interactive services, and data transmissions, can open a world of opportunities for individuals with disabilities who are seeking full participation in our society. The resulting greater access in employment, education, recreation, and other areas can provide significant benefits to individuals with disabilities and to society as a whole. Drawing upon the flexibility and capacity of digital technology, broadcasters should provide such disability access to their ancillary and supplementary services, where doing so would not impose an undue burden. Among other things, this would entail offering a text option for material that is presented orally and an audio option for material otherwise presented visually.

Finally, just as with emergency notifications, we recommend that the FCC and other regulatory authorities work with set manufacturers to ensure that modifications in audio channels, decoders, and other technical areas be built to ensure the most efficient, inexpensive, and innovative capabilities for disability access.

## Diversity in Broadcasting

Diversity is an important value in broadcasting, whether it is in programming, political discourse, hiring, promotion, or business opportunities within the industry. The Advisory Committee recommends that broadcasters seize the opportunities inherent in digital television technology to substantially enhance the diversity available in the television marketplace. Serving diverse interests within a community is both good business and good public policy.

Much attention has been paid historically to the concept of "diversity" in broadcast programming. It is undeniably a good thing for the broadcast industry as a whole to present a wide range of information, opinion and entertainment programming, including programming that responds to the needs and interests of minorities and other underserved communities in our society. Some argue that the marketplace can be relied upon to generate this diversity. Others say that government-imposed station ownership limits, and policies encouraging station ownership by minorities are necessary, at least as adjuncts to marketplace forces. The Advisory Committee recognizes the value of program and viewpoint diversity and recommends that broadcasters take the opportunity presented by the innate flexibility of digital television to enhance substantially the diversity available in the television marketplace.

Much of the discussion and many of the recommendations contained elsewhere in this report bear on the diversity issue. For example, we have recommended that innovation in the use of digital channels for multiplexed, multichannel programming not be discouraged by government policy. A multichannel digital broadcasting model could, of course, include program streams that are "narrowcasts" aimed at distinct audiences, including minority groups and other underserved communities. Multiplexing could also create new opportunities for minority entrepreneurship through channel-leasing agreements, partnerships, and other creative business arrangements.

We have also recommended that, at the end of the transition, one new 6 MHz broadcast channel should be reserved in each market for noncommercial, educational purposes, including the provision of educational programming directed at minority groups and other underserved communities. We have recommended that the flexibility of digital technology be exploited by the use of newly available audio channels to help serve the needs of individuals with disabilities. The Advisory Committee wants to emphasize that this enhanced audio capability will also facilitate increased use of foreign language audio tracks to expand the usefulness and entertainment value of broadcast programming for minority communities, and we recommend that broadcasters take advantage of this capability. Finally, our recommendations on ways that political discourse can be made more effective in the context of digital television will have a direct impact on the diversity of viewpoints that will be available on television in the future.